Applicant: Gopalan Raman Serial No.: 09/698,644 Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

REMARKS

This Amendment is responsive to the Non-Final Office Action mailed July 28, 2004, in which claims 1-3, 5 and 10-20 were rejected. Claims 6-9 have been previously withdrawn from the application as being directed to a non-elected invention. With this Amendment, claims 1 and 15 have been amended, and claims 10-14 have been canceled. Claims 1-3, 5 and 15-20 are pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1-3, 5, and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent No. 6,334,678) in view of Mehta (U.S. Patent No. 5,944,881) and Silverbrook (U.S. Patent No. 6,431,704).

Daigneault is alleged to teach a method for printing a secure image on media using an inkjet printing device, the method comprising printing an underlayer 4 using an inkjet printing device where the underlayer defines an identification indicia. Daigneault is alleged to teach the underlayer being a watermark. The Examiner states that watermarks are preprinted images that inherently receive a subsequent printed image that goes on top of the watermark when the media is printed by the end user. Daigneault is further alleged to teach that the underlayer can be printed from a group of various colors (col. 6, lines 51-53) that are independent of an ink color of the image to be printed by the end-user. Daigneault is further alleged to teach the identifying indicia being related to the secure image, a storage device 28 for storing information specifying the underlayer, a control device 14 for selecting image information from the storage device to print the underlayer, an input device, and an underlayer wherein examination of a front surface allows viewing of the identification indicia for authenticating the secure image, wherein the identification indicia is derived from the secure image.

Daigneault is acknowledged as failing to teach the underlayer penetrating into a front surface of the media, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, the underlayer being printed using one of magenta and cyan ink, the information from the input device being used for printing the overlayer, the underlayer being formed from

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a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, and examination of a back surface opposite the front surface allowing viewing of the identification indicia authenticating the secure image.

Mehta is alleged to teach an underlayer penetrating into a front surface of the media, the underlayer being printed using one of magenta and cyan ink, the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, where examination of the back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image.

The Examiner finds it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta.

Silverbrook is cited as teaching that inkjet printing devices can be used to print images that appear in the foreground of media.

The Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save to time and money using only one device to print the underlayer and the overlayer.

In the Examiner's Response to Arguments, the Examiner states that the limitation "the identification indicia being derived from the secure image" is not a positively claimed method step, and further that the term "derived" does not define a specific relationship between the identification indicia and the secure image. The Examiner therefore finds the quoted limitation is not sufficient to patentably distinguish the claims from the prior art of record. The Examiner further states that giving the limitation its broadest reasonable interpretation, "the identification indicia and the secure image could both be derived from the same alphabet."

Independent claims 1 and 15 have been amended to positively claim as a method step "deriving an identification indicia from a secure image". None of Daigneault, Mehta, or Silverbrook teach or suggest, alone or in combination, "deriving an identification indicia from a secure image". The identification indicia of claims 1 and 15 is obtained from the secure image (the source). In contrast, the underlayers taught by Daigneault and Mehta are

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preprinted and independent of (i.e., <u>not</u> obtained from) the image be printed later on top of the underlayer. Silverbrook fails to remedy the deficiencies of the Daigneault/Mehta combination, as Silverbrook does not address the printing of an underlayer, and therefore cannot make any teaching or suggestion regarding an underlayer.

In response to the Examiner's comment that "Giving the limitation its broadest reasonable interpretation, the identification indicia and the secure image could both be derived from the same alphabet", the Applicant respectfully points out that the claim language specifies that the identification indicia is derived from the secure image, not that the identification indicia and the secure image are both derived from a common source (the alphabet in the Examiner's example).

For at least the reasons provided above, amended independent claims 1 and 15 are not obvious over Daigneault in view of Mehta and Silverbrook, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 2, 3, 5, 16 and 17 depend, directly or indirectly, from amended independent claims 1 and 15, which are in allowable condition for the reasons discussed above. Accordingly, dependent claims 2, 3, 5, 16 and 17 are also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 10, 12, and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent No. 6,334,678) in view of Mehta (U.S. Patent No. 5,944,881) and further in view of Fujimoto (U.S. Patent No. 6,707,564).

Claims 10, 12 and 13 have been canceled from the application.

Claims 11 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent No. 6,334,678) in view of Mehta (U.S. Patent No. 5,944,881) and Fujimoto (U.S. Patent No. 6,707,564) and further in view of Silverbrook (U.S. Patent No. 6,431,704).

Claims 11 and 14 have been canceled from the application.

Claims 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent No. 6,334,678) in view of Mehta (U.S. Patent No. 5,944,881) and Liechti (U.S. Patent No. 5,038,153).

Daigneault is alleged to teach a method for printing a secure image on media using an inkjet printing device, as set forth above, but is acknowledged as failing to teach the

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underlayer penetrating into a front surface of the media, where examination of a back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, and the inkjet printing device for printing the underlayer being different from the inkjet printing device for printing the overlayer.

Mehta is alleged to teach an underlayer penetrating into a front surface of the media, where examination of a back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image. The Examiner asserts it would have been obvious to one of ordinary skill in the art to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta.

Daigneault is further alleged to teach an underlayer in the form of background watermarks that are formed into designs such as company logos. The Examiner describes watermarks as preprinted background images that are subsequently printed on top of by the end user, and finds it would be obvious to subsequently print an image that completely covers the underlayer, in order to efficiently utilize printing media resources by printing on the entire sheet of paper.

Liechti is alleged to teach that inkjet printing devices can be used to print images that appear in the foreground of media, and further that it is conventional in the art to print indicia, such a company logos, in the foreground of media using an inkjet printing device. With respect to claim 18, the Examiner alleges that while the limitation "the shape of the identifying indicia of the underlayer being derived from the shape of the secure image" is taught by Daigneault (because both of the images are of similar size since they are both contained on the same sheet), it would have been obvious to modify Daigneault to print company logos in the foreground, from which the identifying indicia could be derived, in order to enhance the aesthetic quality of the media by providing matching background and foreground images.

The Examiner further alleges it would have been obvious to: modify Daigneault to have the inkjet printing device be used to print the overlaying images, in order to save time and money by only using one device to print the underlayer and the overlayer; and modify

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Daigneault to have the inkjet printing device of Liechti be used to print the overlaying images, since Liechti discloses that the device is capable of printing quality foreground images.

Independent claims 18 specifies that the identification indicia is derived from the secure image, as described above with respect to amended independent claims 1 and 15. Accordingly, the comments presented with respect to claims 1 and 15 are equally applicable to claim 18. Specifically, none of Daigneault, Mehta, or Liechti teach or suggest, alone or in combination, that the identification indicia is derived from the shape of the secure image. The underlayers taught by Daigneault and Mehta are preprinted and independent from (not derived from) the image be printed later on top of the underlayer. Liechti does not remedy the deficiency of the Daigneault/Mehta combination, because Liechti does not address the printing of an underlayer, and therefore cannot make any teaching or suggestion regarding an underlayer. The Examiner suggests that "the identifying indicia of the prior art is derived from the shape of the secure image, because both of the images are of similar size since they are both contained on the same sheet." However, simply because the images may be of similar size or are contained on the same sheet does not imply or suggest that one image is derived (obtained from) from another. At best, it suggests that the images may both be derived from a common source. However, that is not what is set forth in the claims. For at least these reasons, independent claim 18 is not obvious over Daigneault in view of Mehta and Liechti, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 19 and 20 depend directly from independent claim 18, which is in allowable condition for at least the reason discussed above. Accordingly, dependent claims 19 and 20 are also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

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CONCLUSION

In light of the above, Applicant believes independent claims 1, 15 and 18, and the claims depending therefrom, are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to either Matthew B. McNutt at Telephone No. (512) 231-0531, Facsimile No. (512) 231-0540, or Thomas A. Jolly at Telephone No. (541) 715-7331, Facsimile No. (541) 715-8581. In addition, all correspondence should continue to be directed to the following address:

Hewlett-Packard Company

Intellectual Property Administration P.O. Box 272400 Fort Collins, Colorado 80527-2400

Respectfully submitted,

Gopalan Raman,

By his attorneys,

DICKE, BILLIG & CZAJA, PLLC Fifth Street Towers, Suite 2250 100 South Fifth Street Minneapolis, MN 55402 Telephone: (612) 573-2000

Facsimile: (612) 573-2005

DCT 6, 2004

MBM:dmd

Matthew B. McNutt

Reg. No. 39,766

CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Box Non-Fee Amendments, Commissioner for Patents, P.O. Box 1450, Alexandrig, VA 22313-1450 on this 6th day of October, 2004.